

CURRENT LITERATURE

NOTES FOR STUDENTS

Ecological classification.—In a moderate discussion of the classification of vegetation, TANSLEY¹ has clarified some obscure points and made several good suggestions. He insists that it is absolutely necessary to consider the units of vegetation as they actually occur in nature, and not to attempt to classify vegetation either by life forms or habitats. The natural units of vegetation to be employed in any system of classification in the first instance must be determined empirically. These units are essentially topographical units, and are to be grouped according to development. While differing in many ways from true organisms, they may most conveniently and most correctly be regarded as quasi-organisms. In this respect the author takes what appears to be a safe stand midway between such extreme views as those of CLEMENTS, who regards vegetational units as true organisms, and those of GLEASON, who refuses to consider a unit of vegetation as an organic entity. The plant "association" is regarded as the primary and fundamental unit of vegetation. In this TANSLEY is in agreement with a majority of ecological investigators, although he lays great stress upon the limitation of the term to mature units in relatively stable equilibrium with their environment. Transitory plant communities are differentiated from fully developed ones, and are termed "associes." For parts of associations and associes dominated by a single species, it is suggested that CLEMENTS' usage be followed by designating them respectively "consociations" and "consocies."

The continued use of "formation" is recommended. The formation must be determined empirically, and it consists of a set of plant communities related developmentally and culminating in one or more associations. It is regarded as possible to distinguish climatic and physiographic (edaphic) formations, although not so sharply as has been done by NICHOLS, because of the frequent replacement of climatic by physiographic factors which is gradual in the transition region between two climatic regions. It is recommended that plant associations be named by their dominant species, and the formations, whenever it is possible to do so, from the form of the vegetation.—GEO. D. FULLER.

Anatomy of Equisetum.—Several recent papers help considerably to settle the controversy over the fundamental nature of the bundles and the stele in *Equisetum*. MEYER² presents a detailed review of the vascular anatomy of

¹ TANSLEY, A. G., The classification of vegetation and the concept of development. *Jour. Ecol.* 8: 118-149. 1920.

² MEYER, F. J., Das Leitungssystem von *Equisetum arvense*. *Jahrb. Wiss. Bot.* 59: 263-286. *figs.* 7. 1920.